

CLAIMS:

1. An exhaust treatment apparatus for treating exhaust discharged from an exhaust port of an internal combustion engine when testing the internal combustion engine,
5 comprising:

an exhaust inlet portion having an inlet port through which exhaust discharged from the exhaust port is introduced; and

10 a displacement mechanism which displaces the exhaust inlet portion in such a way as to set the inlet port close to and away from the exhaust port.

2. The exhaust treatment apparatus according to claim 1,
15 further comprising a pressing mechanism which presses the exhaust inlet portion toward the internal combustion engine in order to place the inlet port in close contact with the exhaust port.

20 3. The exhaust treatment apparatus according to claim 2, wherein the exhaust inlet portion is attached to the displacement mechanism via the pressing mechanism, and with the exhaust inlet portion being placed close to the internal combustion engine with a predetermined gap therebetween by the
25 displacement mechanism, the pressing mechanism presses the exhaust inlet portion toward the internal combustion engine.

4. The exhaust treatment apparatus according to claim 1,
further comprising:

30 an exhaust treatment section for treating the exhaust; and

an exhaust pipe which connects the exhaust inlet portion to the exhaust treatment section to lead exhaust, introduced to the exhaust port, to the exhaust treatment section.

5. The exhaust treatment apparatus according to claim 1, further comprising a test bed having a restriction mechanism which restricts rocking of the internal combustion engine.

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6. The exhaust treatment apparatus according to claim 5, wherein the restriction mechanism is a clamp mechanism to clamp the internal combustion engine.

10 7. The exhaust treatment apparatus according to claim 5, wherein the test bed is equipped with the displacement mechanism.

15 8. The exhaust treatment apparatus according to claim 7, wherein the displacement mechanism includes:

an arm supported on the test bed in such a way as to be able to rotate around a predetermined rotational axis; and an actuator for rotating the arm, wherein the exhaust inlet portion is provided on the arm.

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9. The exhaust treatment apparatus according to claim 7, wherein the displacement mechanism includes:

25 a slide mechanism provided upright on the test bed; and an arm which is supported in such a manner as to be liftable up and down with respect to the slide mechanism and is lifted up and down by the slide mechanism, wherein the exhaust inlet portion is provided on the arm.

10. The exhaust treatment apparatus according to claim 1, 30 wherein the exhaust inlet portion is provided with a seal member in such a way as to surround the inlet port, and the seal member seals between the exhaust inlet portion and the internal combustion engine with the exhaust inlet portion connected to the internal combustion engine.

11. The exhaust treatment apparatus according to claim 10, wherein the seal member is made of a heat resistant and resilient material.

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12. The exhaust treatment apparatus according to claim 11, wherein the seal member is made of a fluorine-based rubber material.

10 13. The exhaust treatment apparatus according to claim 1, wherein the exhaust inlet portion is attached to the displacement mechanism in a detachable manner.

15 14. An exhaust treatment apparatus for treating exhaust discharged from an exhaust port of an internal combustion engine when testing the internal combustion engine, comprising:

a test bed equipped with a clamp mechanism to clamp the internal combustion engine;

20 an arm supported on the test bed in such a way as to be able to rotate around a predetermined rotational axis;

an arm actuator for rotating the arm and moving the arm between a test position close to the internal combustion engine and a standby position distant from the internal

25 combustion engine;

a masking section provided on the arm and having an inlet port to permit inlet of exhaust discharged from the exhaust port; and

30 a masking-section actuator which couples the masking section to the arm in a movable manner and presses the masking section toward the internal combustion engine with the arm placed at the test position, thereby connecting the inlet port to the exhaust port.

15. The exhaust treatment apparatus according to claim
14, further comprising:

an exhaust treatment section for treating the exhaust;
and

5 a flexible exhaust pipe which connects the masking
section to the exhaust treatment section to lead exhaust,
introduced to the exhaust port, to the exhaust treatment
section.

10 16. The exhaust treatment apparatus according to claim
14, wherein the masking section is provided with a seal member
in such a way as to surround the inlet port, and the masking-
section actuator places the masking section in close contact
with the internal combustion engine via the seal member.

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17. An exhaust treatment apparatus for treating exhaust
discharged from an exhaust port of an internal combustion
engine when testing the internal combustion engine,
comprising:

20 a test bed equipped with a clamp mechanism to clamp the
internal combustion engine;

a slide mechanism provided upright on the test bed;
an arm which is supported in such a manner as to be
liftable up and down with respect to the slide mechanism and
25 is lifted up and down by the slide mechanism in such a manner
that the slide mechanism moves the arm between a test position
close to the internal combustion engine and a standby position
distant from the internal combustion engine;

30 a masking section provided on the arm and having an inlet
port to permit inlet of exhaust discharged from the exhaust
port; and

a masking-section actuator which couples the masking
section to the arm in a movable manner and presses the masking
section toward the internal combustion engine with the arm

placed at the test position, thereby connecting the inlet port to the exhaust port.

18. The exhaust treatment apparatus according to claim
5 17, further comprising:

an exhaust treatment section for treating the exhaust;
and

10 a flexible exhaust pipe which connects the masking section to the exhaust treatment section to lead exhaust, introduced to the exhaust port, to the exhaust treatment section.

19. The exhaust treatment apparatus according to claim
15 17, wherein the masking section is provided with a seal member in such a way as to surround the inlet port, and the masking-section actuator places the masking section in close contact with the internal combustion engine via the seal member.